

Abstract of the Disclosure

A semiconductor wafer processing method comprising affixing a protective tape to the front surface of a semiconductor wafer having a plurality of circuits formed 5 on its front surface, grinding the back surface of the semiconductor wafer and then, executing plasma etching of the back surface of the semiconductor wafer, wherein a tape having an adhesive layer that is hardened by exposure to ultraviolet radiation is used as the protective 10 tape and exposed to ultraviolet radiation to harden the adhesive layer before the back surface of the semiconductor wafer undergoes plasma etching.